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(74) Agents: DALEY-WATSON, Christopher et al.; Perkins Coie LLP, Patents-SEA, P.O. Box 1247, Seattle, WA 98111-1247 (US).

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(71) Applicant (for all designated States except US): **WALTIC-AL SOLUTIONS, INC.** (formerly Walbell Technologies, Inc.) [US/US]; Suite D159, 1750 112th Ave. NE, Bellevue, WA 98004 (US).

(72) Inventors; and

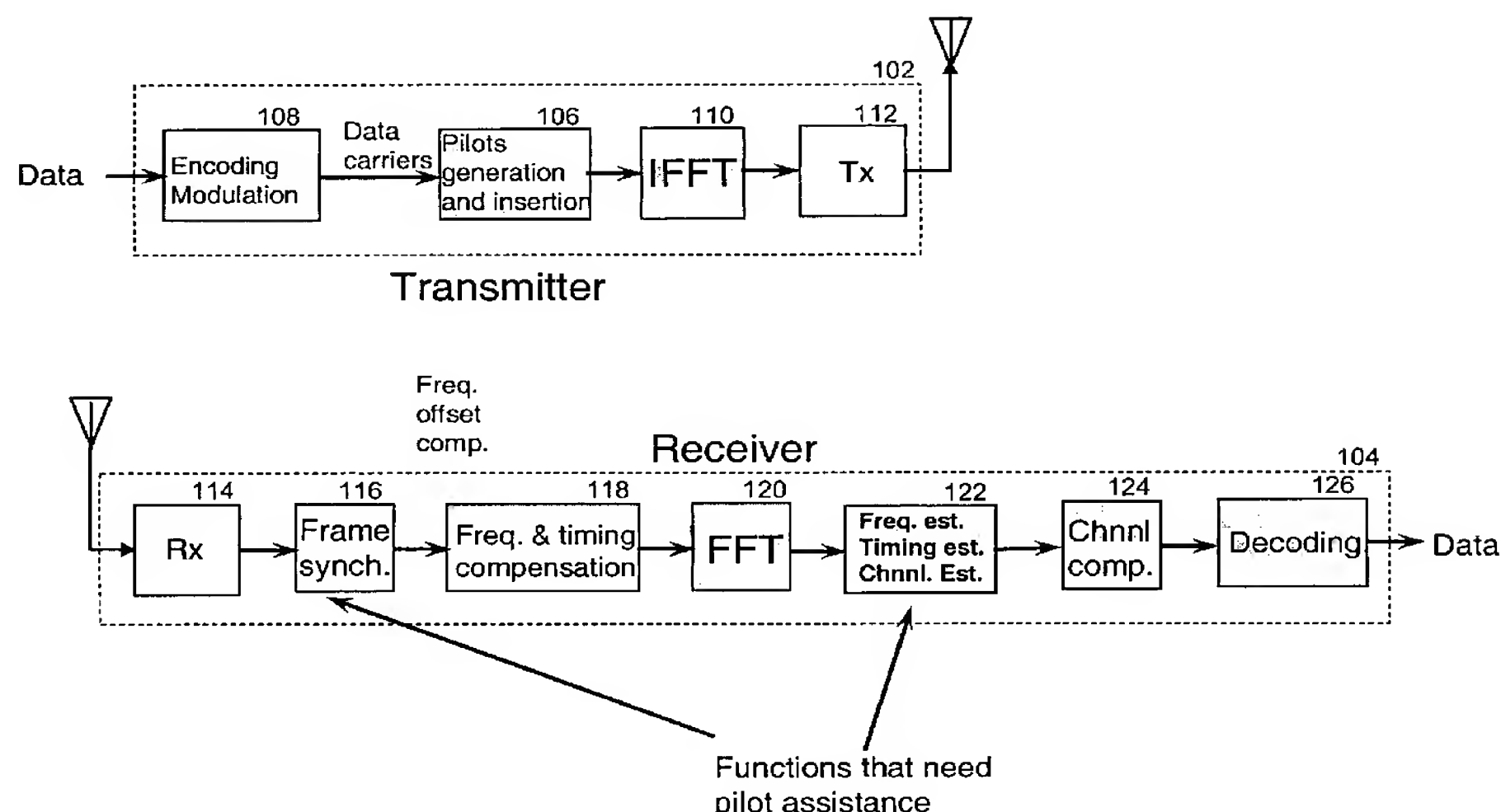
(75) Inventors/Applicants (for US only): **LI, Xiaodong** [US/US]; 9919 129th PL NE, Kirkland, WA 98033 (US). **LO, Titus** [CA/US]; 10501 181st Ave NE, Redmond, WA 98052 (US). **LI, Kemin** [CN/US]; 4228 144th Lane SE, Bellevue, WA 98006 (US). **HUANG, Haiming** [CN/US]; 605 141st CT SE #D203, Bellevue, WA 98007 (US).

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[Continued on next page]

(54) Title: METHODS AND APPARATUS FOR MULTI-CARRIER, MULTI-CELL WIRELESS COMMUNICATION NETWORKS



(57) Abstract: A multi-carrier cellular wireless network (400) employs base stations (404) that transmit two different groups of pilot subcarriers: (1) cell-specific pilot subcarriers, which are used by a receiver to extract information unique to each individual cell (402), and (2) common pilots subcarriers, which are designed to possess a set of characteristics common to all the base stations (404) of the system. The design criteria and transmission formats of the cell-specific and common pilot subcarriers are specified to enable a receiver to perform different system functions. The methods and processes can be extended to other systems, such as those with multiple antennas in an individual sector and those where some subcarriers bear common network/system information.

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